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1983-84 NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS READING PROFICIENCY CATHOLIC SCHOOL RESULTS AND NATIONAL AVERAGES

Final Report

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Final Report

Background

There has been a considerable amount of research attention focused on Catholic secondary schools in recent years, and virtually all of it has documented the superiority of those schools in comparison to public secondary schools. Major comparisons of the two school sectors have shown that Catholic high schools excel in several areas: general student achievement levels, gains in achievement over the course of high school, and especially strong achievement (and gains) for disadvantaged students. The information base for most of this research has been the 1980 and 1982 data from High School and Beyond, a nationally representative study of high school sophomores and seniors conducted by the National Center for Education Statistics.

Fortunately, equally representative data have recently become available that allow researchers to examine the reading proficiency of American students at three points in their educational careers: fourth grade, eighth grade, and 11th grade. These data come from the National Assessment of Educational Progress (NAEP), funded by the U.S. Department of Education and administered by Educational Testing Service. In the school year 1983-84, NAEP assessed reading proficiency on a national sample of approximately 20,000 students at each of the three grade levels, including close to 2,000 Catholic school students at each level. This report summarizes those results and presents the achievement of Catholic school students in reading along with the national averages. Thus, for the first time, Catholic educators are able to evaluate the reading progress of their students compared to the nation as a whole, not only at the high school level, but at the elementary and middle school levels as well.

For every subgroup measured by NAEP (sex, race/ethnicity, region of the country, parental education level, community grouping, and the like), Catholic school students at all three grade levels outscore the nation. At fourth grade, Catholic school students exceed the national average by 7.8 points on a scale of 0 to 500 (Note 1). It is not useful to use statistical significance levels to describe these differences, since virtually every group or subgroup difference is highly significant (i.e., at probability levels of less than 1 in 1000--see Note 2). Eighth graders in Catholic schools average 10.5 points above the national average; for 11th graders, the Catholic school reading proficiency advantage is 10.2 points (Note 3). As the High Schools and Beyond study documented, the advantage for disadvantaged students--particularly for Black and Hispanic students--is even greater for comparison of the whole group. This confirms previous findings about the higher achievement of these students in Catholic high schools and suggests similar results at lower grade levels as well. What follows is a summary of these and other findings that relate to Catholic school reading performance in comparison to that of the nation's "average" student in the fourth, eighth, and 11th grade.

The findings are divided into three sections. Each section presents comparisons of Catholic school student performance with the respective national average and focuses on the following characteristics:

1. Findings that compare students on subgroupings related to family background and social status;
2. Findings that relate to characteristics of the schools (e.g., their locations and certain information about their curricula);

3. Findings that relate to students behaviors associated with academic performance (i.e., homework, television watching, student grades, and some course-enrollment information for 11th graders).

Admittedly, the findings in this report have been chosen selectively, based on this writer's perception of topics that have received attention in research relating to the effectiveness of Catholic schooling.

Results

1. Findings Related to Student Background

The reading achievement of Catholic-school students is considerably higher than the national average. Girls read more proficiently than do boys, but the difference between the sexes is less pronounced at the lower grades in Catholic schools that for the national average. For example, the difference between the sexes is 3.8 vs. 4.1 for fourth grade, 3.4 vs. 7.5 in eighth grade, and 3.3 vs. 12.3 vs. 9.8 for 11th grade students. Numerical results are presented in Table 1 and graphically documented in Figure 1.

Table 1

Reading Proficiency Score for Students in Catholic Schools

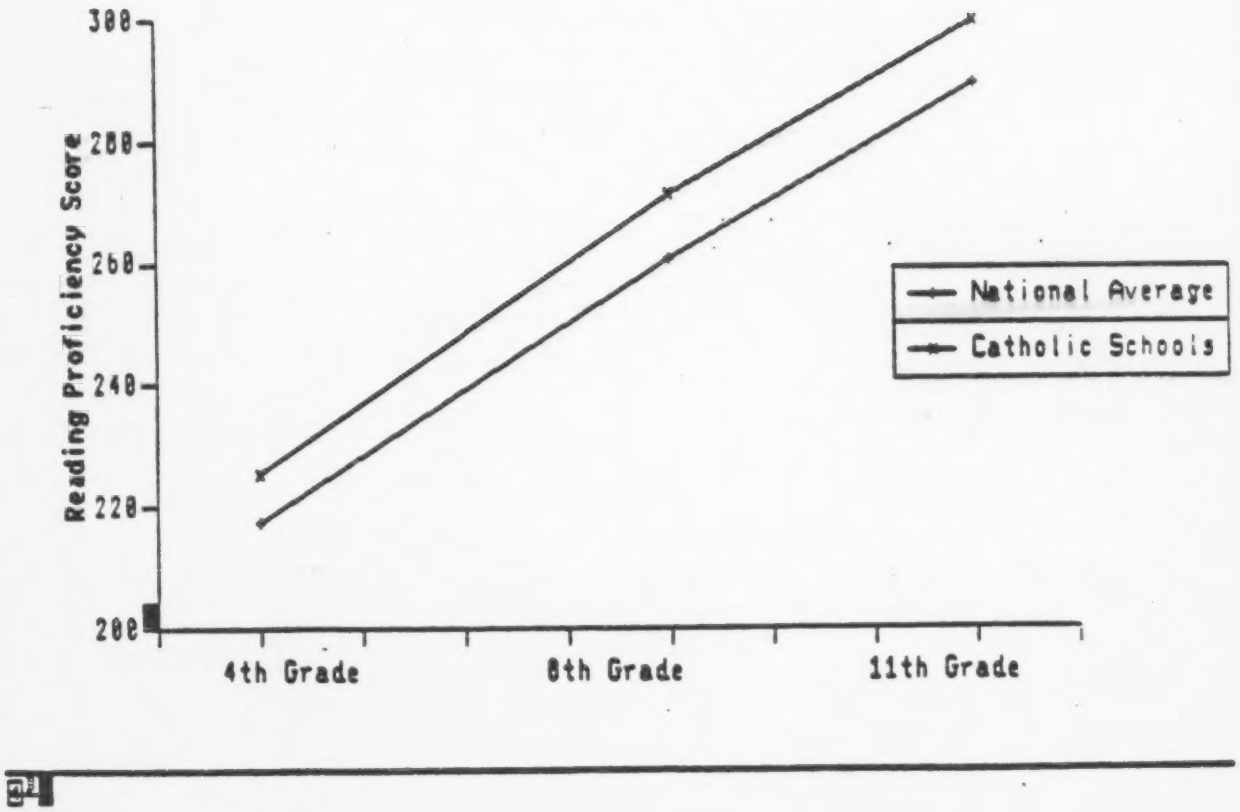
Compared to the National Average

	4th Grade		8th Grade		11th Grade	
	Catholic Schools	National Average	Catholic Schools	National Average	Catholic Schools	National Average
Total	225.3	217.5	271.2	260.7	299.5	289.3
Males	223.3	215.1	269.4	257.0	293.2	284.5
Females	227.1	220.0	272.8	264.5	305.5	294.3

FIGURE 1

1983-84 NAEP Reading Proficiency Scores

for Students in Catholic Schools Compared to the National Average



The major finding of this investigation relates to minority group performance. When comparing racial/ethnic subgroups, we find that the scores of Catholic school minority students are more similar to those of their White classmates than is the case nationally. This is in addition to the fact that the scores for minority group students are well above the national averages for those subgroups. Another way of stating this is that "White proficiency advantage," compared to that of either Black or Hispanic students, is smaller in Catholic schools than nationally. This is true at all three grade levels, and stronger for Black students than for Hispanic. For example the scores of Black fourth graders in Catholic schools are lower than those of Whites students by 24.8 points, but these differ by 30.0 points for the national sample of fourth graders. A similar pattern exists at eighth and 11th grades as well.

Table 2

Reading Proficiency Scores for Students By Racial/Ethnic Subgroups

In Catholic Schools Compared to the National Average

	4th Grade		8th Grade		11th Grade	
	Catholic Schools	National Average	Catholic Schools	National Average	Catholic Schools	National Average
Whites	229.7	224.9	275.1	266.7	302.3	295.8
Blacks	204.9	194.9	252.8	240.7	286.2	268.1
Hispanics	211.2	201.2	255.7	242.4	281.8	269.5

FIGURE 2

1983-84 NAEP Reading Proficiency Scores for

Black Students in Catholic Schools Compared to the National Average

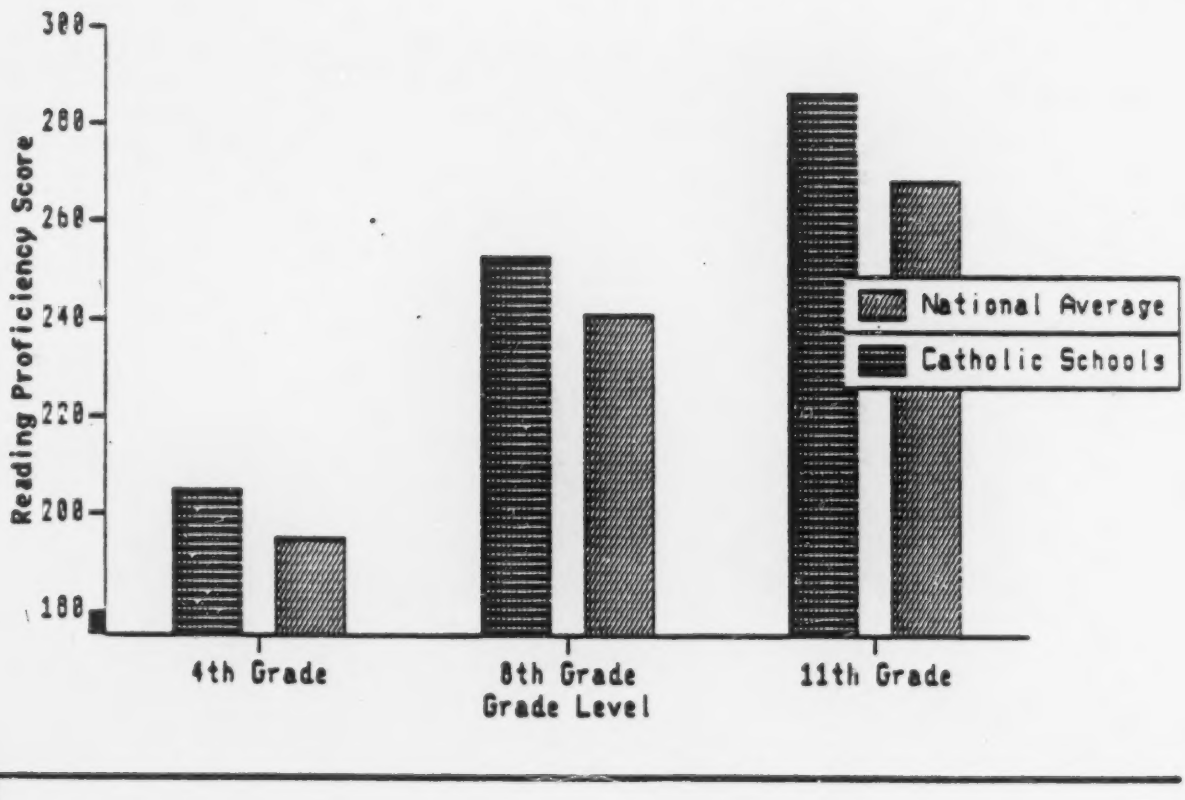
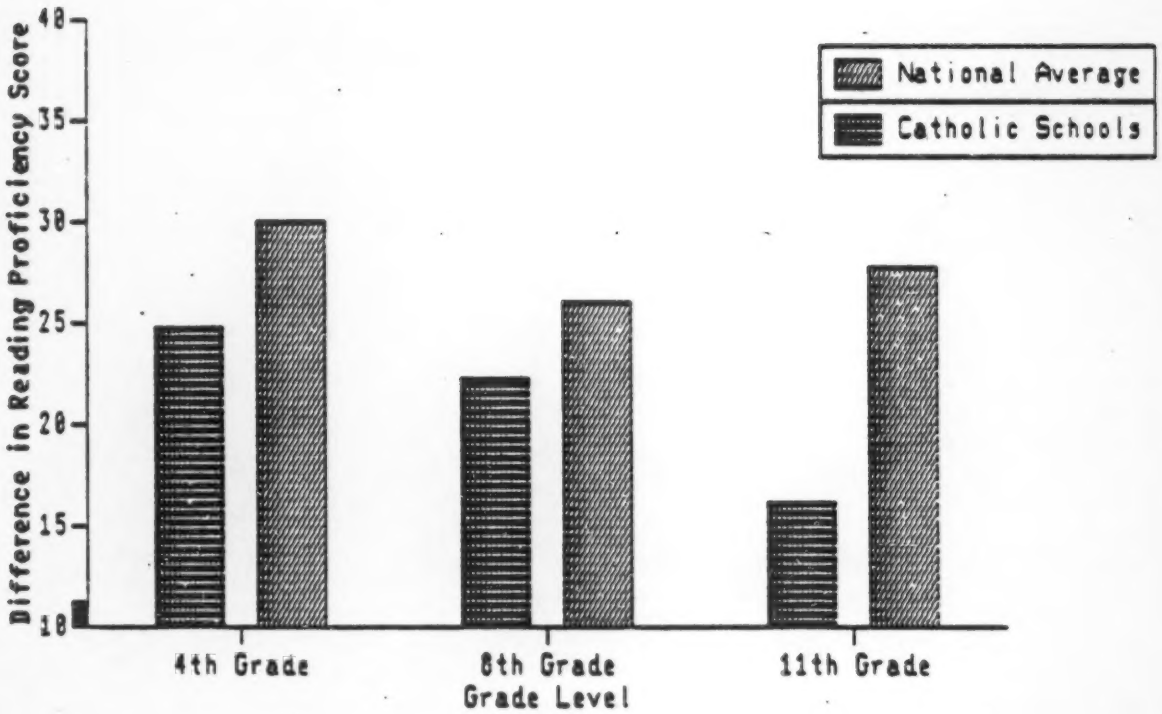


FIGURE 3

1983-84 NAEP Reading Proficiency: The Reading Advantage of White Students as Compared to Black Students in Catholic and National Average Schools



The same pattern exists for Hispanic students in Catholic schools. Their average scores, although above the national average for Hispanic students (and still considerably below their White counterparts at all three grade levels), are less different from the scores of White students than is the case for the national average. For example, eighth grade Hispanic-White differences are 19.4 points in Catholic schools, 24.3 points for the national average. Although Hispanic students score somewhat above Black students in reading proficiency in both Catholic and national average schools (except for 11th graders in Catholic schools), their proficiency levels are still below those of their White counterparts. Minority students at Catholic schools appear to be less disadvantaged vis-a-vis White students and considerably above their minority counterparts in other schools nationally. However, the degree to which these minority groups score below overall national averages is still serious.

FIGURE 4

1983-84 NAEP Reading Proficiency Scores for Hispanic Students

in Catholic Schools Compared to the National Average

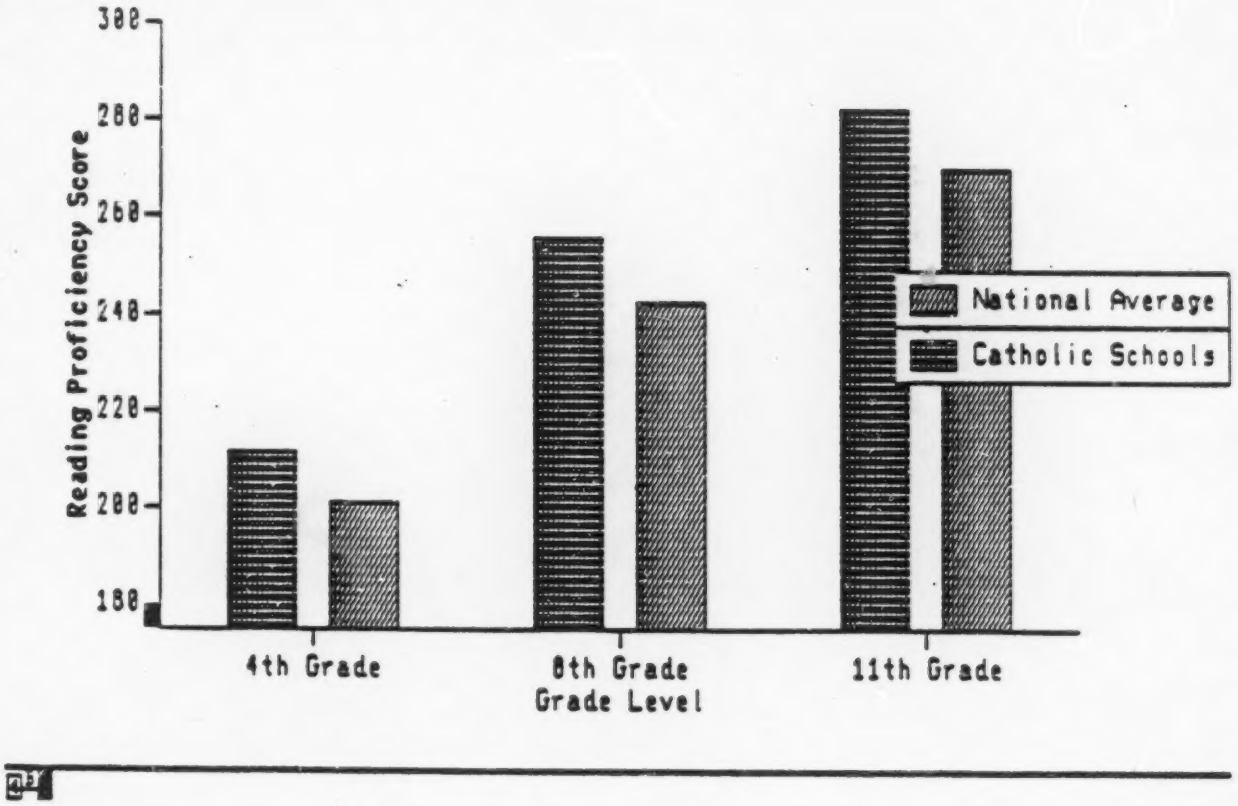
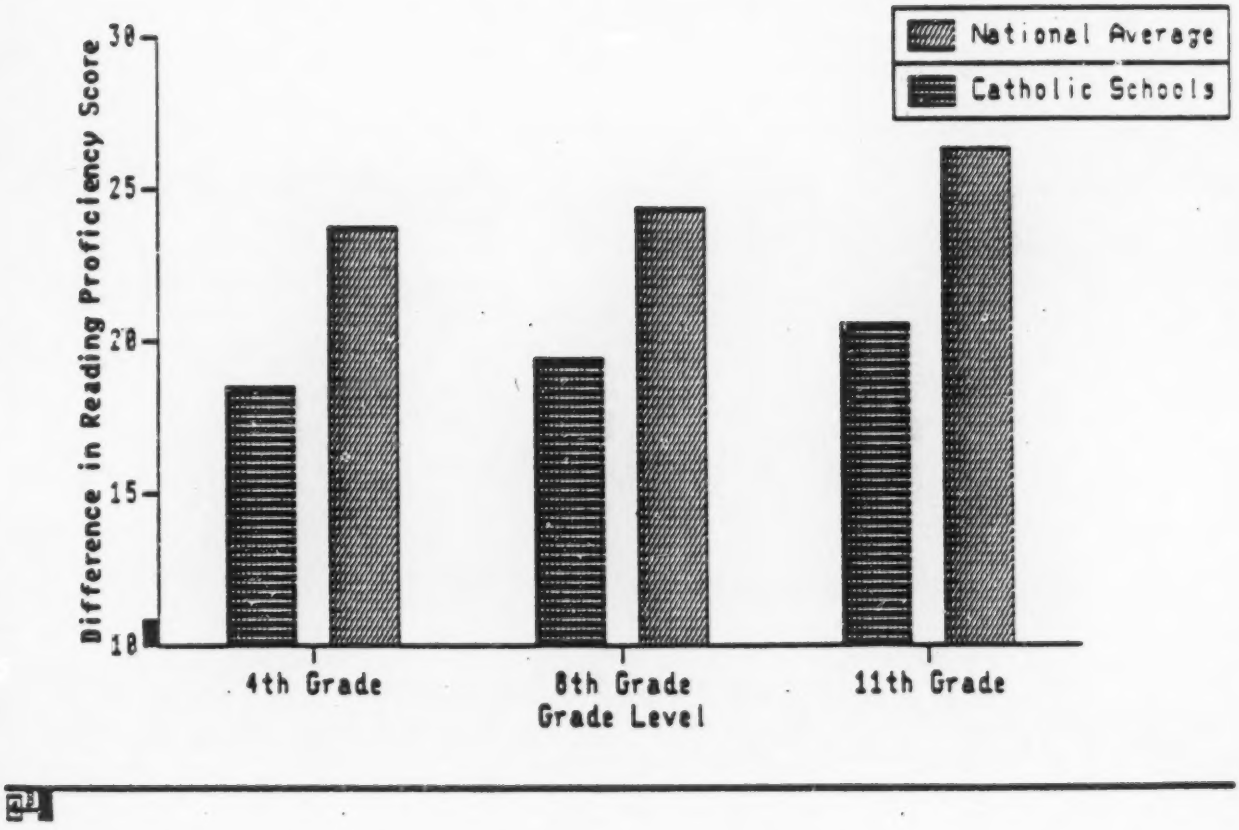


FIGURE 5

1983-84 NAEP Reading Proficiency: The Advantage of White Over Hispanic Students in Catholic and National Average Schools



Other differences relating to student background have been selected by evaluating the Catholic-national average reading proficiency score comparisons that exceed the overall average differences for each age group. Those findings are presented here, but without accompanying tabular figures.

- The proportion of Black students in Catholic schools is about half that in the nation's schools--eight percent in Catholic schools and 15 percent for the national average. This is true at all three grade levels, but there is a very slightly higher proportion of Black students in Catholic schools in the eighth than in the fourth or 11th grades.

- The proportion of Hispanic students in Catholic schools is slightly higher than the proportion in all schools, and the relative proportion of Hispanic students at fourth grade in Catholic schools in highest (15 percent vs. 11 percent for the national average).

- Gender differences in reading proficiency favor females in both Catholic schools and on the national average within both Black and Hispanic groups, as well as for Whites students. However, the "female reading superiority" does not seem to be any greater for these racial/ethnic groups than for the average.

- Catholic schools appear to be particularly effective for Hispanic students who come from families where Spanish is the principal language

spoken at home. This occurs across all three grade levels.

- A slightly higher proportion of mothers of Catholic school students work outside the home than the national average for fourth and 11th graders. The proportion of these mothers exceeds 50 percent in all types of schools at all three grade levels. This is not true for eighth graders, where slightly fewer Catholic school mothers work outside the home than the national average. Although the reading proficiency of Catholic school students is somewhat higher for students whose mothers don't work outside the home at fourth and eighth grades, children of mothers who do work outside the home score somewhat higher at all three grade levels at the national level. This reverses prior reports on the negative effect on children's achievement levels when the mother works outside the home.

- Minority students whose mothers work outside the home appear to do particularly well in Catholic school. This is true for Hispanic students at fourth grade and for Black students at eighth and 11th grade. The same pattern appears to be the case for minority students in Catholic schools whose mothers are college graduates.

- Catholic school students are somewhat more likely to come from homes with a computer (about 29 percent of Catholic school homes have computers, compared to the national average of about 27 percent). Homes of fourth graders more commonly contain computers than those of

older children. At the national average level, students with computers at home score somewhat higher in reading proficiency. However, this does not seem to be true for Catholic school students at fourth and 11th grades.

Another way of characterizing student reading proficiency is the proportion of students achieving the rudimentary, basic, intermediate, adept, and advanced proficiency levels described in Note 1. Table 3 presents reading proficiency characterized in this fashion for 11th graders. It is clear that Catholic school proficiency levels are significantly higher than the national average for minority group students when results are so characterized. For example, the percentage of White students reading at an adept level in Catholic schools is 7.4 percentage points above the national average (54.0% vs. 46.6%), but for Black students the difference is 22.6 points (41.7% vs. 19.1%), White and Hispanic students in Catholic schools show a 10.7 point advantage (30.2% vs. 19.5%). Similar patterns occur at all proficiency levels.

Table 3

Reading Proficiency Levels for 11th Graders by Racial/Ethnic Subgroups

In Catholic Schools Compared to the National Average

	White		Black		Hispanic	
	Catholic Schools	National Average	Catholic Schools	National Average	Catholic Schools	National Average
Rudimentary	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Basic	100.0%	99.3%	99.0%	97.1%	100.0%	96.2%
Intermediate	94.0%	89.6%	81.1%	68.8%	80.9%	71.0%
Adept	54.0%	46.6%	41.7%	19.1%	30.2%	19.5%
Advanced	7.0%	6.1%	2.6%	1.0%	1.0%	1.4%

FIGURE 6

1983-84 NAEP Reading Proficiency Scores for

Students in Catholic Schools Compared to the National Average

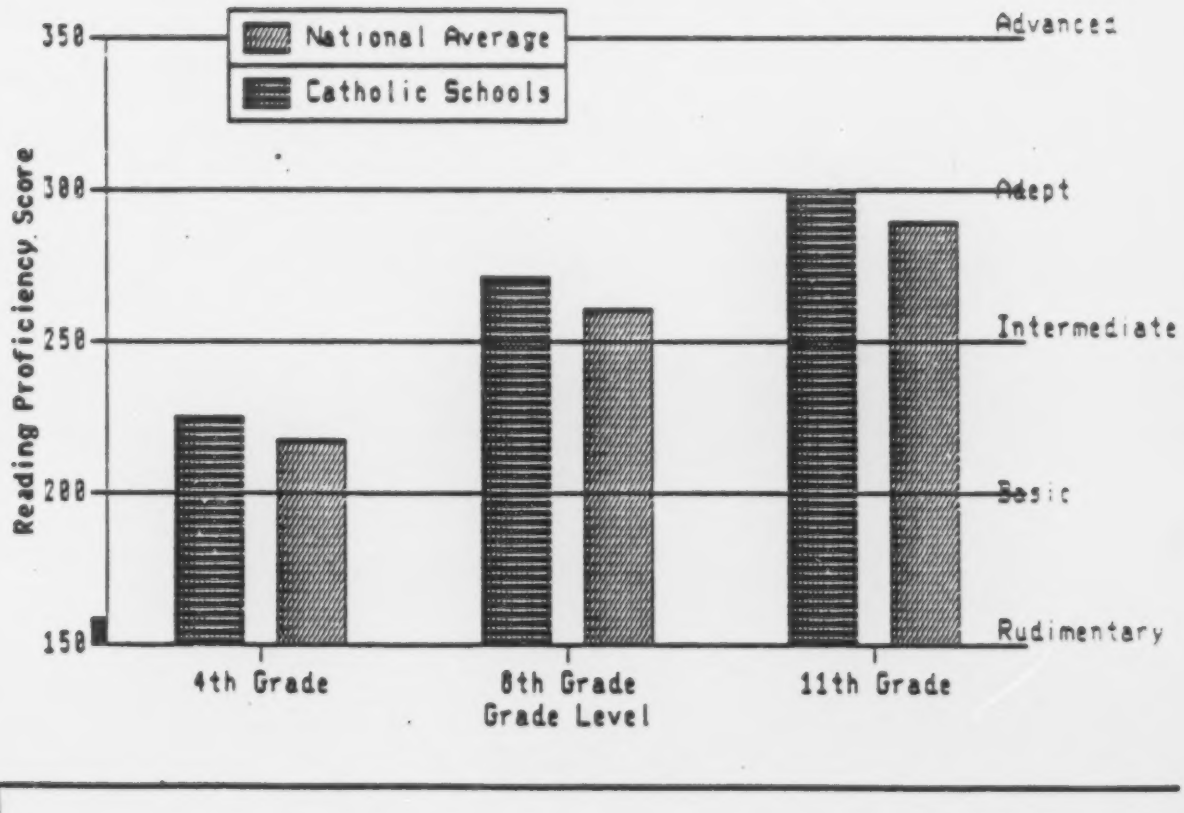


Figure 6 shows the six reading proficiency levels defined by NAEP and the average proficiency levels at the three grade levels for Catholic and national average students. It is clear that fourth graders read at a basic level in both sorts of schools, eighth graders somewhat above an intermediate level, and 11th graders close to an adept level. The proportion of students reading at an advanced level is small—less than 10 percent of White students and less than three percent of minority students in Catholic schools as well as the national average.

Again, Catholic school students are consistently and very significantly above the national average on reading proficiency at all three grade levels.

2. Findings Relating to Schools

NAEP gathered information about which subject areas of the school curriculum sample students studied at least once a week. Among all the possible curricular areas (drama, art, gym, etc.) surveyed, we have chosen to highlight three areas in which Catholic schools have been singled out for special attention in the past: science, computer, and foreign language study. The proportion of students who have at least one class per week in these areas is presented in Table 4. Except in Grade 8, Catholic school students still appear to have fewer computer classes than the national average, despite the recent efforts directed at this area. However, Catholic school students , except for eighth graders still hold their traditional lead in foreign language training. Over 20 percent of fourth graders in Catholic schools are given instruction in foreign language at least once weekly. Those Catholic school fourth graders who study foreign language score almost 16 points higher

in reading proficiency than their national average counterparts who study a foreign language. This advantage is less for foreign language students at higher grade levels, although above average in all instances.

Although science is an area where Catholic schools have shown less (or no) achievement superiority or achievement gains in comparison to public schools, according to High School and Beyond results, the NAEP survey results show that a greater proportion of Catholic school students than the national average are studying science at least once a week, even at the high school level. This indicates frequency of contact and cannot, therefore, be taken as a measure of the quality of the instruction in that area (NAEP will assess science in 1986, when such information will be available). Reading proficiency scores for those Catholic school students taking science show less advantage over the national averages than other cited differences. Catholic school students appear to be exposed to more science instruction than the national average.

Table 4

The Proportion of Students Having Classes in Three Curricular Areas

At Least Once a Week In Catholic Schools Compared to the National Average

	4th Grade		8th Grade		11th Grade	
	Catholic Schools	National Average	Catholic Schools	National Average	Catholic Schools	National Average
Computer Science	16.7%	27.8%	31.3%	18.4%	12.1%	18.1%
Foreign Language	22.4%	13.4%	18.8%	20.7%	38.6%	31.8%
Science	89.2%	79.5%	96.6%	86.8%	59.8%	55.7%

A school-related activity that is likely to increase reading proficiency is the amount of reading students do. NAEP has measured this as the number of pages students read per week, either in school or for homework (personal reading is excluded). This is categoried on a scale that ranges between "20 or more pages" and "5 pages or less". Catholic school students appear to read slightly more pages per week, particularly the proportion of students reading 20 or more pages. For those students reading the most, reading proficiency for Catholic school students is considerably higher than the national average, especially for eighth graders. However, Catholic school reading scores are especially higher than the national average for students who read the least in school (5 or fewer pages per week), even though a smaller proportion of Catholic school students are in this category. This is likely to reflect social differences among these students, a factor that has not yet been directly evaluated with these data.

Catholic schools are distributed across the nation differently than are public schools. More heavily concentrated in the northeast and the central regions of the United States, they are less likely to be located in the west and considerably less likely to be found in the southeast. Clearly, this continues to reflect the distribution of Catholics around the nation. This pattern occurs at all three grade levels. Reading proficiency levels are distributed somewhat differently, however. For the smaller proportion of students in Catholic schools in the southeast region, the proficiency levels are higher than in the other regions at all grade levels. This is particularly true for 11th graders. This is the case both in comparison to other regional

scores for Catholic schools and compared to the national averages. The lowest achievement levels, among Catholic school students, are found in the western schools at fourth and eighth grades and in the schools in the northeast in the 11th grade. However, these still exceed the national average by at least three points (or by four standard errors).

Catholic schools are also located primarily in urban areas. By high school, almost half of these students attend Catholic schools located in big cities. The proportion of students in big-city schools is documented in Table 5. Note that the proportion of Catholic school minority group students in big-city schools increase sharply at the higher grade levels. By the 11th grade, well over 80 percent of the minority students attending Catholic high schools do so in big cities. This is rather sharply contrasted from minority enrollment at fourth and eighth grades. When compared to the distribution of schools in big cities, the contrasts with national averages are particularly marked. Even in high school, only relatively small proportions of minority students attend big-city schools. This could reflect several trends: that those minority students living in large cities who choose to remain in school (rather than drop out) choose Catholic schools; that the dropout rate for minorities in Catholic schools is considerably below the national average (this we know to be the case); or perhaps that, since big cities are where Catholic schools are located, that is where students who attend them live. This is probably true, since the proportion of White students who attend Catholic high schools in big cities is also high (41 percent). It is impossible to address these questions in this investigation.

Table 5

The Proportion of White, Black, and Hispanic Students Attending Schools Located in Large Cities: Catholic Schools Compared to the National Average

	4th Grade		8th Grade		11th Grade	
	Catholic Schools	National Average	Catholic Schools	National Average	Catholic Schools	National Average
Average	28.7%	7.6%	24.1%	10.4%	49.8%	8.8%
White Students	27.0%	6.2%	20.6%	9.1%	41.2%	7.2%
Black Students	18.0%	10.2%	48.1%	12.8%	87.9%	11.6%
Hispanic Students	40.8%	11.4%	24.1%	15.8%	87.0%	6.5%

Interestingly, average reading proficiency for students in both Catholic schools and for the national average is lower in big-city schools at fourth and eighth grades, but slightly above the national average at 11th grade. However, the considerable Catholic school advantage is maintained throughout. For both Black students in Catholic schools and for the national average of Black students, however, achievement in big-city schools is above the proficiency level for Black students at the national average, and this is especially the case in Catholic schools. For Hispanic students, no consistent pattern is evident between proficiency and big-city location for either Catholic schools or at the national level.

3. Findings Related to the Academic Behaviors of Students

It is impossible to disassociate certain academically related behaviors of students from the schools those students attend. Which courses students select, how much homework they do, and the like reflect the interplay between school and student (and sometimes parents). However, we know that certain academic behavior patterns are characteristic of students in particular types of schools. Therefore, these behaviors rightly belong in any set of descriptions of how the process of schooling affects students. Other research has documented that the amount of homework a student does is positively related to his/her achievement level, and, in general, an excessive amount of television watching is negatively related to school progress. Table 6 shows both the proportion of students at each grade level who spend from zero to more than two hours per night on homework, as well as the reading proficiency level of students in each category.

Table 6

Reading Proficiency Level and the Percentage of Students Who Spend Various Amounts of Time per Day on Homework in Catholic and National Average Schools

	4th Grade		8th Grade		11th Grade	
	Catholic Schools	National Average	Catholic Schools	National Average	Catholic Schools	National Average
0 Hours	18.9%	33.1%	14.8%	22.2%	16.8%	21.4%
	223.6	218.8	265.9	256.6	292.7	277.7
Homework Not Done	3.4%	4.1%	2.4%	4.3%	11.7%	11.3%
	206.5	203.9	252.3	248.9	291.9	286.7
Less Than 1 Hour	53.3%	43.1%	33.6%	35.3%	27.3%	26.0%
	227.9	219.9	273.3	263.5	299.9	290.7
1-2 Hours	18.4%	13.7%	36.3%	29.3%	29.2%	27.5%
	231.5	223.2	275.5	267.3	301.1	293.8
2 or More Hours	6.0%	6.0%	13.0%	8.7%	15.1%	13.9%
	220.5	209.9	272.2	266.4	311.4	300.3

Several trends are clear from examination of this table. Catholic school students do more homework than the national average at every grade level. Students who don't do their homework are those whose reading proficiency reflects their dereliction. That is, not doing assigned homework seems to be more related to reading proficiency than having no homework to do. It also seems to be the case that students can do too much homework. That is, reading proficiency for those who do two or more hours of homework a night is actually lower than those who spend somewhat less time on homework. This is probably capturing students who are having difficulty with their studies and try to make it up with more time spent on work at home. This trend is particularly marked at fourth grade, is evident at eighth grade, but is definitely not the case in 11th grade, where two or more hours on homework is related to considerably higher proficiency levels. A general trend expected but not found in these data is that students at higher grade levels spend more time on homework. The relationship of reading proficiency and time on homework is positive for both Catholic school students and the national average (excluding the top groups at fourth and eighth grades). It could be conjectured that one reason Catholic school students surpass the national average in reading proficiency is because they are assigned, and do, more homework.

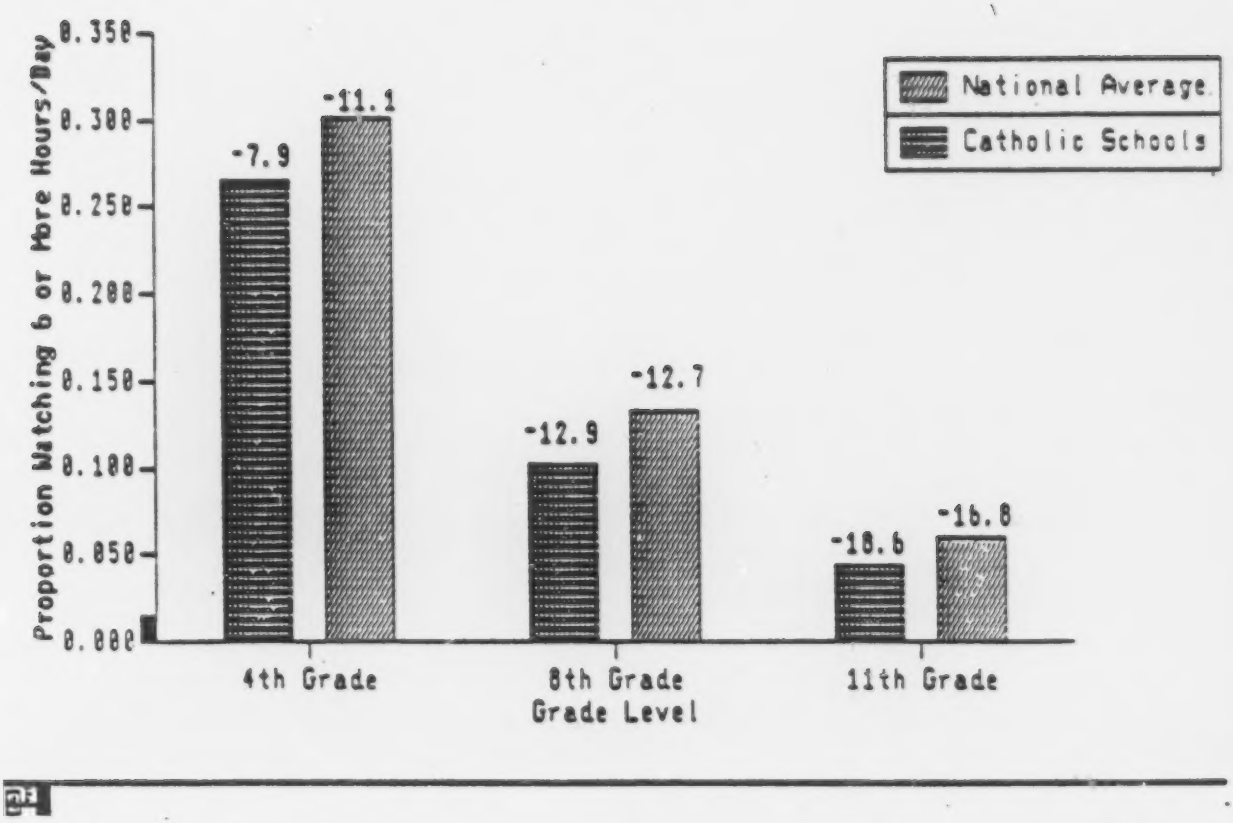
Catholic school students appear to spend slightly less time than the national average watching television. The amount of time spend watching TV is negatively related to reading proficiency for both students in Catholic schools and the national average of students. Excessive television watching is particularly detrimental. That group of students who report spending six

or more hours per day in front of a television set seem to be especially adversely affected by that experience (see Figure 7). Although this group represents a smaller proportion of Catholic school students than the national average (26 vs. 30 percent of fourth graders, 10 vs. 13 percent of eighth graders, and 4 vs. 6 percent of 11th graders), it is still surprising that the proportions are as high as they are, particularly for younger children. For fourth graders, this represents a very substantial portion of the non-school waking hours for over a quarter of this age group. The degree to which the reading proficiency levels for this group of children falls below the average for their peers is presented in Figure 7. That for fourth graders falls 8 points below the Catholic school average and 11 points below the national average. Although the proportion of students watching excessive television falls as their ages advance, the corresponding disadvantage of doing so increases. Clearly, time on television detracts from reading proficiency. However, this group could also share common social characteristics which partially "explain" their lower performance.

FIGURE 7

Reading Proficiency Disadvantage of Student

Who Watch Excessive Amounts of Television



Not surprisingly, students who report receiving higher grades also score higher in reading proficiency. A slightly lower proportion of Catholic school fourth graders report receiving high grades (39 vs. 41 percent receiving mostly A's). For the other two grade levels, the proportion of Catholic and national students who report grades in each category is very similar. Interestly, those Catholic school students who report receiving most of their grades at the "C" level or below (36 percent) score substantially higher in reading proficiency than the corresponding group in the national average (43 percent). Reading proficiency levels among the other "grade groups" still show a Catholic advantage, but below the average levels show in Table 1.

For 11th graders, the NAEP surveys asked students how many years of coursework they had completed in various curricular areas: mathematics, science, English or literature, foreign language, and social studies or history. Coursework in academic areas such as Algebra I was not differentiated from either remedial or non-rigorous coursework (Note 4). This limits the ability to relate amount of coursework in various areas to reading proficiency. However, certain comparative trends are evident from examination of the data in Table 7.

Table 7

Reading Proficiency Level and the Percentage of 11th Graders Who Have Completed Varying Amounts of Coursework in Math, English, Foreign Language, History, and Science

	1 Year		2 Years		3 Years	
	Catholic Schools	National Average	Catholic Schools	National Average	Catholic Schools	National Average
English and Literature	2.4% 284.1	2.9% 270.5	63.5% 305.9	57.7% 298.8	21.7% 289.6	8.3% 283.9
History, Soc'l Studies	32.1% 305.0	27.3% 293.7	43.4% 301.5	45.4% 295.9	11.4% 287.8	14.8% 281.6
Foreign Language	33.1% 303.5	23.4% 299.1	39.9% 304.3	23.6% 304.5	2.6% 305.3	3.6% 299.4
Mathematics	12.3% 290.4	16.8% 284.2	59.6% 305.2	51.8% 297.1	15.3% 292.6	13.6% 288.0
Science	33.6% 300.0	30.8% 288.3	46.5% 304.8	46.3% 298.7	9.4% 289.5	10.1% 292.4

Catholic school 11th graders have completed more coursework in English and literature, mathematics, and foreign language than the national average. However, these same students appear to take somewhat less history, social studies, and science than their national counterparts. Reading proficiency levels do not relate to more coursework in any one area (i.e. scores drop off for students who take three years of any particular subject). This could be interpreted as an argument for a balanced curriculum. Clearly, too much of a single subject comes at the expense of overlooking study in another. Although the Catholic school reading proficiency advantage is maintained at every level of coursework in every curricular area (except for those who take three years of science, where the Catholic average is below the national level), the substantial Catholic-national average differences seen in other comparisons presented in this paper are not in evidence in relation to course enrollment in any curricular area. Although coursework in language-related areas might logically relate to reading proficiency, that does not seem to be a strong trend within these data.

There are several other patterns related to course enrollment which are not presented in Table 7. For example:

- Females take fewer math courses in both Catholic schools and in the national average. The proportion of females to males who have taken three or more years of mathematics is 15 vs. 26 percent in Catholic school, 15 vs. 22 percent for the national average. Thus, Catholic school males take more advanced math courses than average, but this is not true for females.

- Black students in Catholic schools take more math courses than their White counterparts (29 percent of Black students take three or more years of math, compared to 20 percent of White students). This is also true of Hispanic students (27 vs. 20 percent). This is true but to a lesser extent on the national average. Remedial math courses are included in these measures.

- The Catholic school reading proficiency advantage over the national average is particularly pronounced for students who take either very few English and literature courses (a 14-point advantage for those taking only a single year) or very many of these courses (a 12-point advantage for males who have taken over three years of these courses).

- Only about five percent of students in all high schools have taken over three years of math by the end of their junior year of high school. For that select group, Catholic school students reading scores are 16 points above the national average.

- Fully 75 percent of Catholic school 11th graders report never having taken a computer programming course in high school. This compares to a national average of 69 percent. The lower exposure to computer reported earlier in this paper for Catholic school students is reflected in their specific reports about course work.

Some General Conclusions

It had been hypothesized that the superior performance of Catholic to public high school students confirmed by recent research from High School and Beyond might be due, at least in part, to the fact that Catholic secondary schools enroll a student body that is somewhat more selective than that of Catholic elementary schools. However, the new reading proficiency data from the National Assessment of Educational Progress do not confirm that hypothesis. That is, the reading proficiency advantage of students in Catholic schools over the national average is consistent across the three grade levels assessed by NAEP. This indicated that the advantage of Catholic school students' reading levels is not confined to secondary schools and their special selectivity, but is consistent across the elementary, middle, and secondary school years.

Since the comparison group in this investigation is the average of student performance throughout the nation and is not confined to students in public schools as in previous research, the comparison group averages also contain the same Catholic school students who comprise the group of special focus. Were those students' proficiency scores removed from the national average, the difference in reading levels between the groups would probably be even larger. That is, it is likely that Catholic/public reading proficiency differences are underestimated by the comparison made in this paper.

The fact that minority group students in Catholic schools show an even larger advantage over the national average than White students across all three grade levels is reason for the Catholic educational establishment to

feel special pride in its accomplishment. Our nation as a whole has not been able to produce educational gains for disadvantaged students as quickly as the expectation for those gains has developed, despite the fact that there is some evidence to support the positive effects of nationally funded compensatory educational programs such as Title I and Head Start. However, the reading proficiency of Black and Hispanic students in Catholic schools greatly exceeds the levels for those groups in the nation. More importantly, the proficiency differences between minority and White students in Catholic schools is substantially less than the national average, indicating that these students are considerably less "educationally disadvantaged" within the Catholic educational sector. This could be described as a socially equalizing effect of Catholic schooling. However, the justifiable pride in such accomplishments should be tempered by recognizing that the proficiency level of minority students in Catholic schools still trails that of their White counterparts.

The progress of minority students in Catholic schools appears to be concentrated in exactly the areas of the United States where public education is experiencing it greatest difficulties--the big cities of the northeast and central regions of America. Clearly, it is to the Catholic schools in these areas that public educators interested in increasing the learning of disadvantaged students might turn for clues as to why these schools seem to function so effectively.

It is impossible to identify definitively the characteristics of Catholic schools that seem to induce proficiency in their students with comparisons of subgroup mean differences such as those made in this investigation. One cannot discount the fact that on average a different sort of student presents

him/herself at the door of the Catholic school than the public school, and schools cannot claim credit for educational progress that actually accrues from more advantageous student background characteristics (Note 5). However, the fact that, on average, Catholic school students do more homework, watch less television, are exposed to more instruction in academic subject areas, and select more courses in high school in academic areas that relate to school achievement cannot be discounted from an explanation for the substantial reading proficiency advantages these students show in almost every group comparison. In addition, the many characteristics of schools that comprise what has come to be know as school climate or "ethos", especially concentrated in the teaching staff and in what many have identified as a sense of community in Catholic schools, are not meant to be incorporated into a study that has been typified as "The Nation's Report Card." However, these characteristics have also been shown to positively relate to student progress.

Even with these caveats, Catholic schools appear to be educating their students well in the area of reading. The real value of a nationally representative study such as NAEP is to periodically "take the pulse of the nation" in certain areas of educational proficiency. It appears that the Catholic school "patient" is quite healthy.

Technical Notes

1. NAEP scores for all three grade levels are combined into single scale from 0 to 500. For this report, that scale has been divided into five levels of proficiency:

   o Rudimentary: 150 points or below;

- o Basic: 151-200 points;
- o Intermediate; 201-250 points;
- o Adept: 251-300 points; and
- o Advanced; 301-350 points.

These levels are defined by NAEP to include the following skills:

Rudimentary — Performance at this level suggests the ability to carry out simple, discrete reading tasks.

Basic — Performance at this level suggests the ability to understand specific or sequentially related information.

Intermediate — Performance at this level suggests the ability to search for specific information, interrelate ideas, and make generalizations.

Adept — Performance at this level suggests the ability to find, understand, summarize, and explain relatively complicated information.

Advanced — Performance at this level suggests the ability to synthesize and learn from specialized reading materials.

2. Significance levels are determined by evaluating the number of standard

errors by which the mean proficiency of two groups differ. Significance at the .05 level is achieved if this ratio is 2. at the .01 level at 2.6, at the .001 level at 3.3. To give some idea of those significance levels for these data, consider the following:

	4th Grade	8th Grade	11th Grade
Catholic Reading Proficiency Advantage over Nat'l Average	7.8	10.5	10.2
Standard Error of Nat'l Average	0.7	0.5	0.8
Ratio, Advantage/Std. Error (Also called "t-statistic")	11.1	21.0	12.8

Clearly, reading proficiency averages for students in Catholic schools are very significantly above the national average. Virtually every comparison made is statistically significant. In general, the comparisons highlighted in this paper are those that are even more significant than the figures shown above.

3. The national average achievement level of 11th graders and the average achievement level of 11th graders in Catholic high schools are somewhat differentially affected by the proportion of students who drop out of school. We know that Catholic school dropout rates are considerably lower than the national average, which influences the mean achievement levels of those students who remain in those schools. However, it is difficult to

estimate how these results might change because of this phenomenon.

4. It was found in High School and Beyond analyses that, although the average Catholic high school curriculum is largely academic in nature, many public schools offer coursework that, although not strictly remedial in nature, would not be classified as academic courses. This includes courses such as "Checkbook Math", "English for Non-Readers" and the like. It is difficult to make these sorts of differentiation with the course variables from NAEP. However, the impact on student achievement of these different types of courses is substantially different.

5. These questions of what researchers call "selectivity bias" cloud studies that compare the educational progress of students in Catholic and public schools (or any comparative studies for which group membership is other than randomly decided). In the present investigation, no attempt has been made to adjust statistically for the social differences between students in Catholic schools compared to the national average. For example, in order to be sure that Black students really do better in Catholic than public schools, we would need to adjust for the fact that those Black students who present themselves to Catholic schools are likely to be more affluent, better prepared academically, and from families who perhaps value education more highly and therefore encourage and motivate their children to a greater degree. Hopefully, these NAEP data will be employed for such a rigorous statistical analysis in the future.